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## 12. OCCURRENCE OF *MICROPROSTHEMA SEMILAEVE* (DECAPODA, MACRURA) IN RATNAGIRI

(With three text-figures)

During one of the shore collection trips to Mirkarwada foreshore in the month of December, 1968, a specimen of *Microprosthema* sp. measuring 14 mm in length was obtained. The animal was found in a small depression on the rocky bed. There is paucity of literature on this peculiar group from Indian waters. Gravely (1927) recorded *Microprosthema validum* Stimpson (= *Stenopus robustus* Borradaile) from Krusadai and Shingle Islands. Pillai (1961) recorded this species from Adams Bridge, Pamban, and gave a short description with a good figure. Recently, Mahadevan *et al.* (1962) collected two specimens from Palk bay which they have referred to as *Microprosthema semilaeve*?

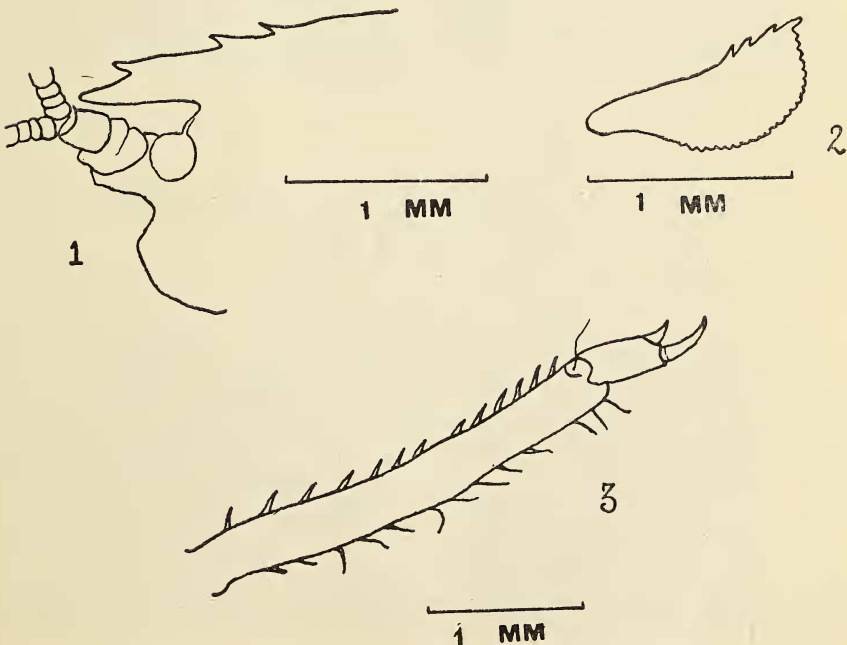
Holthuis (1947) who has given a detailed account of the family Stenopodidae has recognised four species of *Microprosthema* (*M. validum*, *M. semilaeve*, *M. plumicorne* and *M. scabricaudatum*). Of these *M. validum* and *M. semilaeve* are very close, differing from one another in the presence or absence of a short longitudinal median carina at the posterior half of the dorsal surface of the third abdominal segment and in the number of teeth along the outer margin of the scaphocerite. However, Mahadevan *et al.* (op. cit.) have shown that in their specimens the number of teeth on the outer margin of the scaphocerite show a range of variation which can embrace both the species, commenting that much reliance cannot be placed on this character in distinguishing the two species. Based on other characters such as the absence of the median longitudinal carina on the posterior half of the dorsal surface of the third abdominal segment, the uninterrupted nature of the transverse carina on the same segment and presence of a longitudinal shallow groove at the upper half of the inner margin of the carpus of the third periopod, they have tentatively referred their specimens to *M. semilaeve*, commenting that if much reliance cannot be placed on the character of presence or absence of the short longitudinal median carina at the posterior half of the dorsal surface of the third abdominal segment, then *M. semilaeve* should be treated as synonym of *M. validum*.

The local specimen shows more closeness to *M. semilaeve* in the following characters :

- (1) Absence of a double row of spinules on the carapace behind the rostrum.
- (2) The transverse carina on the third abdominal segment entire.
- (3) The upper inner side of the carpus of the third periopod has a fairly deep longitudinal groove.
- (4) Absence of medium longitudinal carina on the posterior half of the dorsal surface of the third abdominal segment.
- (5) Ischium of the third maxillipede with four spines externally.
- (6) Propodus and carpus of the fourth and fifth periopods undivided.

However, the local specimen differs from *M. semilaeve* in the following characters :

- (1) Rostrum with three spines on the dorsal side and none on the ventral (fig. 1).
- (2) Scaphocerite with four small teeth on the outer margin (fig. 2).
- (3) Propodus of the fourth and fifth periopods with 13 movable spines (fig. 3).
- (4) Uropodal exopods with 10 teeth and endopods with 4 teeth on the outer margin.
- (5) Telson without teeth in between the two longitudinal carinae.



*Microprosthema semilaeve* : Fig. 1. Rostrum in lateral view ; Fig. 2. Scaphocerite of the left side ; Fig. 3. Propodus and dactylus of fourth periopod.

On the other hand the local specimen shows only one similarity with *M. validum* in having 4 teeth on the outer margin of the scaphocerite, a character which Holthuis considers as specific. However, considering the similarity of the local specimen with *M. semilaeve* given above and in the light of comments made by Mahadevan *et al.* (op. cit.) the present specimen is tentatively referred as *M. semilaeve*. This is thus the first record of this species from the west coast of India and second from Indo-Pacific region.

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### 13. TWO NEW RECORDS OF SOIL COLLEMBOLA FROM SOUTH INDIA

(With thirteen figures in a plate)

About sixty species of soil and litter inhabiting Collembola have been reported by Prabhoo (1971 a, b) particularly from the western ghats in Kerala. These reports contain the majority of the widely distributed collembolan species of Kerala. The two species reported here seem to have a comparatively restricted range of distribution and further they show certain morphological features distinguishing them from conspecific populations described from other parts of the world.

**Acherontiella bougisi** Cassagnau and Delamare Debutteville 1955 (Figs. 1-6)